AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for controlling a crane, the method comprising giving velocity requests as control sequences from a crane control system to crane drives and reading and storing the velocity requests (Vref) in a control system, whereby

each velocity request (Vref) is compared with the previous velocity request and, if the velocity request is changed, an acceleration sequence for the corresponding velocity change is formed and stored, after which, ~~irrespective of whether the velocity request has changed,~~

summing the velocity changes defined by ~~the~~ stored acceleration sequences ~~at a given time~~after a given time interval and adding the obtained sum (dV) to the previous velocity request to achieve a new velocity request (Vref2), which is set as a new control and velocity request for the crane drives, and

performing some of the velocity changes defined by the summed acceleration sequences at ~~the~~ a definition time of each sequence and performing the rest of them as delayed,

defining, at each time, the distance (s) the crane moves before stopping and without swinging of the load fastened to it by summing up the following calculations:

a) ~~Stopping~~ stopping distance (s1), which is calculated on the basis of ~~the~~ an internal target velocity, i.e. the velocity at which the control of ~~the~~ an algorithm implementing this ~~has~~ ends, when (after) the stored velocity changes are entirely implemented, by using ~~the~~ a selected deceleration ramp, and

b) distance (s2), which is calculated on the basis of stored velocity change requests stated before ~~the~~ a stopping decision, and on the basis of remaining performance times.

2. (Currently Amended) A method as claimed in claim 1, wherein when decelerating ~~the~~ a target velocity of point a), ~~the~~ a distance (s3) caused by preventing the load from swinging, calculated on the basis of the part of the velocity control that differs from the deceleration ramp and being travelled by the crane when the swinging of the load caused by the actual deceleration ramp is damped with this differing velocity control is added to the calculation result.

3. (Previously Presented) A method as claimed in claim 1, wherein placing the storages in a two-element table, whereby the velocity change which is to be carried out after a certain oscillation time is stored in the first element and the time, after which the velocity change or changes of the first element are carried out, is stored in the second element.